Knowledge organiser

Cardiorespiratory System



What is the cardiorespiratory system?

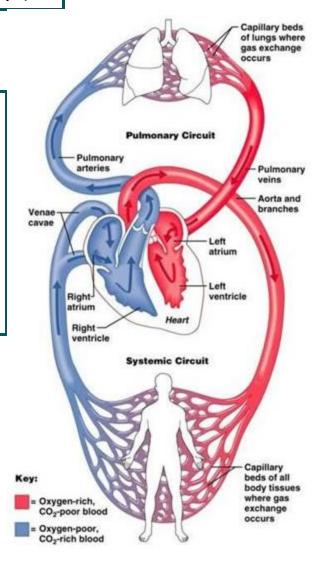
The cardiorespiratory system consists of the heart and blood vessels, which work with the respiratory system (the lungs and airways).

What are the responses during a pulse raiser?

- Increased heart rate
- Increased breathing rate
- Increased depth of breathing
- Increased supply of oxygen to the working muscles
- Increased removal of carbon dioxide.

What are the responses during the preparation stretches?

- Slight drop in heart rate and breathing rate for static stretches
- Maintained elevated heart and breathing rate for dynamic stretches.



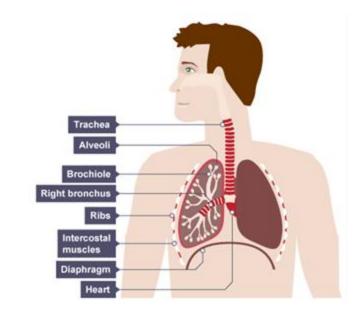
What is the purpose of the cardiorespiratory system?

The cardio-respiratory system works together to get oxygen to the working muscles and remove carbon dioxide from the body.

During exercise the muscles need more oxygen in order to contract and they produce more carbon dioxide as a waste product.

What are the responses during the mobilser?

- Slight drop in heart rate as intensity of exercise lowers
- Slight drop in breathing rate as intensity of exercise lowers.





Knowledge organiser

Musculoskeletal System



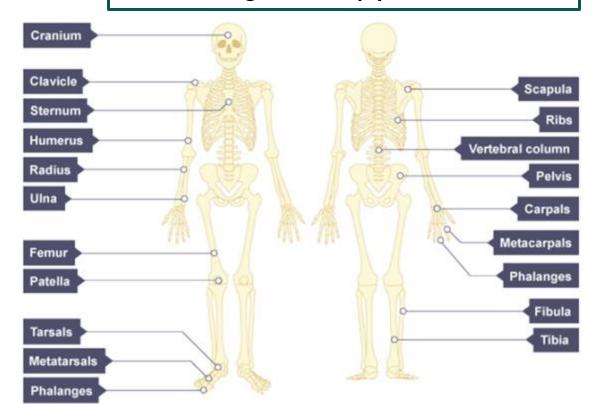
What is the musculoskeletal system?

The major functions of the bones are body support, facilitation of movement, protection of internal organs, storage of minerals and fat, and haematopoiesis. Together, the muscular system and skeletal system are known as the musculoskeletal system.

Pectoralis major External obliques Hip flexors Gluteus maximus Quadriceps Hamstrings

What is the purpose of the musculoskeletal system?

Your musculoskeletal system includes bones, muscles, tendons, ligaments and soft tissues. They work together to support your body's weight and help you move.



What are the responses with a pulse raiser?

Increased temperature of the muscles

Tibialis anterior

- Increased pliability of the muscles
- Reduced risk of muscle strain.

What are the responses with a mobiliser?

Gastrocnemius

Increased production of synovial fluid in the joints to increase lubrication of joint and increase range of movement at the joint.

What are the responses with the preparation stretches?

Extending muscles so that they are fully stretched and less likely to tear during the sport or activity session.



BTEC Tech Award Level 1/2 in Sport